

Abstract

Semiconductor component with trench isolation and associated fabrication method

The invention relates to a semiconductor component with trench isolation and to an associated fabrication method, a trench isolation (STI, TTI) having a deep isolation trench with a covering insulation layer (10, 11), a side wall insulation layer (6) and an electrically conductive filling layer (7), which is electrically connected to a predetermined doping region (1) of the semiconductor substrate in a bottom region of the trench. The use of a trench contact (DTC), which has a deep contact trench with a side wall insulation layer (6) and an electrically conductive filling layer (7), which is likewise electrically connected to the predetermined doping region (1) of the semiconductor substrate in a bottom region of the contact trench, makes it possible to improve the electrical shielding properties with a reduced area requirement.

Figure 3